

DOCKET NO: 284318US0X PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
MARCELLO NOTARI, ET AL. : EXAMINER: TISCHLER, FRANCES
SERIAL NO: 10/566,401 :
FILED: JANUARY 30, 2006 : GROUP ART UNIT: 1796
FOR: USE OF DIALKYL CARBONATES :
AS SOLVENTS FOR EXPANDED
POLYSTYRENE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

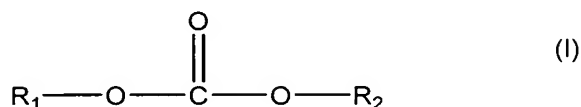
SIR:

Applicants respectfully request review of the Advisory Action mailed April 20, 2009 and the Final Office Action mailed January 7, 2009. This request is being filed with a Notice of Appeal. The review is requested for the reasons set forth herein.

Applicants respectfully submit that the Office clearly erred in concluding that polystyrene is not claimed, and thus not examined. Claim 21 reads:

Claim 21. A process for recycling expanded *polystyrene* comprising:

volume reduction of expanded *polystyrene* by dissolution in a solution comprising a dialkyl carbonate, or a blend of dialkyl carbonates, having the following general formula (I):



wherein R_1 and R_2 are the same or different and each independently represent a linear, a branched or a cyclic alkyl radical having from 1 to 12 carbon atoms, and the sum of the carbon atoms of R_1 and R_2 is from 2 to 15;

removal of an insoluble component, if present;

selective precipitation of *polystyrene* with a non-solvent, wherein the non-solvent is an alkylene carbonate, or a blend of non-solvents consisting of an alcohol and an alkylene carbonate;

separation of precipitated *polystyrene*; and

drying of precipitated *polystyrene*.

How can anyone deny that this claim is directed to polystyrene?

One of ordinary skill in the art giving claim 21 its broadest reasonable interpretation consistent with the specification clearly would have recognized that the process of claim 21 is directed to recycling expanded *polystyrene*. Applicants respectfully submit that that the Office's interpretation of claim 21 and assertion that the claim language does not include polystyrene is unreasonable with respect to the plain meaning of the claim and inconsistent with the specification.

Applicants further submit that the Office clearly erred in concluding, in the Advisory Action, that the arguments set forth in the Response filed April 7, 2009 are substantially similar to the previously submitted arguments set forth in the Amendment filed September 24, 2008.

The Amendment was successful in overcoming the anticipatory rejections over each of Masahide and Shingo, as well as the obviousness rejections over Peters alone and in view of Masahide and Shingo. The references of Vogel and Cohen were cited for the first time in the Final Office Action. Applicants arguments traversing the new obviousness rejections based, in part, on the newly cited references of Vogel and Cohen were set forth *for the first time* in the

Response (See e.g., page 3, lines 8-25, page 4, lines 1-14 and 19-25, page 5, in its entirety, page 6, lines 1-2 and 9-16). Therefore, the Office clearly erred in concluding that the arguments set forth in the Response are substantially similar to the previously submitted arguments set forth in the Amendment. Contrary to the Advisory Action, the Office has not substantively addressed the arguments set forth in the Response.

Applicants further submit that the Office has not established a *prima facie* case of obviousness.

Applicants respectfully submit that, contrary to the Final Office Action, a skilled artisan would not have been motivated to combine Shingo with the *clearly unrelated* references of Vogel and Cohen. Shingo is directed to a process for *recycling foamed polystyrene*. Vogel is directed to a method for *reducing wrinkles on clothing fabric*. Cohen is directed to a process for laminating a photosensitive layer to a substrate in the manufacture of *printed circuit boards*.

Applicants further submit that even if sufficient motivation and guidance is considered to exist for a skilled artisan to combine Shingo with the unrelated references of Vogel and Cohen, which is clearly not the case, a skilled artisan would not have arrived at the process of the present invention comprising selective precipitation of polystyrene with an alkylene carbonate non-solvent, or a blend of non-solvents consisting of an alcohol and an alkylene carbonate, as presently claimed, *absent impermissible hindsight reconstruction*.

Vogel fails to provide a skilled artisan with sufficient motivation and guidance to *particularly select* the claimed polystyrene from either the *tremendously large genus* of film-forming polymers, or the *particularly preferred* film-forming polymers, described therein. Vogel *teaches away* from utilizing alkylene carbonates or alcoholic blends thereof because Vogel *explicitly* discloses that the *particularly preferred* liquid carrier is water and that the aqueous liquid carrier *preferably does not contain* C₁-C₄ monohydric alcohols (e.g., ethanol,

propanol, isopropanol), C₂-C₆ polyhydric alcohols (e.g., alkylene glycols, polyalkylene glycols), alkylene carbonates and mixtures thereof.

Cohen fails to provide a skilled artisan with sufficient motivation and guidance to *particularly select* the claimed polystyrene from the *tremendously large genus* of thermoplastic polymers described therein. Cohen also fails to provide a skilled artisan with sufficient motivation and guidance to *particularly select* an alkylene carbonate non-solvent or a blend of non-solvents consisting of an alcohol and an alkylene carbonate, as presently claimed, from the various solvent and non-solvent liquids, or the *particularly preferred* aqueous solutions of methanol or ethanol, described therein. Cohen fails to disclose or suggest a non-solvent liquid comprising a mixture of an alcohol and an alkylene carbonate.

Applicants therefore respectfully submit that a *prima facie* case of obviousness has not been established by the Office because *insufficient* motivation and guidance exists for a skilled artisan to combine the disclosures of the *clearly unrelated* references of Shingo, Vogel and Cohen to arrive at the process of the present invention comprising selective precipitation of polystyrene with an alkylene carbonate non-solvent, or a blend of non-solvents consisting of an alcohol and an alkylene carbonate, as presently claimed, *absent impermissible hindsight reconstruction*.

In conclusion, Applicants submit that the present application is now in condition for allowance and notification to this effect is earnestly solicited.

Respectfully submitted,

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